

| Ref # | Hits  | Search Query  | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|-------|---|---|------------------|---------|------------------|
| L1    | 10528 | 428/64.\$ or 428/65.5 or 428/611 or 428/336 or 428/693  | US-PGPUB; USPAT                             | OR               | ON      | 2005/11/30 15:23 |
| L2    | 303   | 360/327.\$  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR               | ON      | 2005/11/30 15:23 |
| L3    | 97693 | 428/694\$ or "360"/\$ or "369"/\$   | US-PGPUB; USPAT                             | OR               | OFF     | 2005/11/30 15:23 |
| L4    | 184   | ((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and ("underlayer") and (loop\$) and ("soft magnetic" with (underlayer or perpendicular))) | US-PGPUB; USPAT                             | OR               | ON      | 2005/11/30 15:41 |
| L5    | 241   | 428/829.CCLS. or 428/830.ccls. or 428/832.ccls. or 428/832.2.ccls   | US-PGPUB; USPAT                             | OR               | ON      | 2005/11/30 15:41 |
| L6    | 13    | I5 and ("perpendicular magnetic") and ("soft magnetic") and ("underlayer") and (loop\$) and ("soft magnetic" with (underlayer or perpendicular)))   | US-PGPUB; USPAT                             | OR               | ON      | 2005/11/30 15:42 |
| L7    | 16    | (428/694\$ or 369/13.\$ or "360"/("131, 135,136")).ccls. and ("perpendicular magnetic") and ("soft magnetic") and "underlayer"  | US-PGPUB; USPAT                             | OR               | ON      | 2005/11/30 15:47 |
| L8    | 17    | ("428"/("900","668")).ccls. and ("perpendicular magnetic") and ("soft magnetic") and "underlayer"   | US-PGPUB; USPAT                             | OR               | ON      | 2005/11/30 15:52 |
| L9    | 32    | ("360"/("327.2","313","327.22","327.23","327.3") or (204/192.2)).ccls. and ("perpendicular magnetic") and ("soft magnetic") and "underlayer"  | US-PGPUB; USPAT                             | OR               | ON      | 2005/11/30 15:52 |
| S1    | 1     | "6132567"   | USPAT                                       | OR               | OFF     | 2004/06/28 13:10 |
| S2    | 16    | "4632883"   | USPAT                                       | OR               | OFF     | 2003/12/23 19:14 |
| S3    | 10    | "5616218"   | USPAT                                       | OR               | OFF     | 2003/12/23 19:15 |
| S4    | 1     | "461834"  | EPO   | OR               | OFF     | 2003/12/23 19:23 |
| S5    | 6344  | 428/694\$ or "360"/\$ or "369"/\$   | EPO   | OR               | OFF     | 2005/11/30 15:22 |
| S6    | 195   | (428/694\$ or 369/13.\$ or "360"/("131, 135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer"  | US-PGPUB; USPAT                             | OR               | ON      | 2005/06/23 15:32 |
| S7    | 0     | ((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and ("underlayer") and ("closed magnetic loop"))  | US-PGPUB; USPAT                             | OR               | ON      | 2003/12/23 19:30 |

|     |    |  |                 |    |    |                  |
|-----|----|--|-----------------|----|----|------------------|
| S8  | 0  | ((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and ("closed magnetic loops"))   | US-PGPUB; USPAT | OR | ON | 2003/12/23 19:30 |
| S9  | 0  | ((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and ("magnetic loop\$"))   | US-PGPUB; USPAT | OR | ON | 2003/12/23 19:30 |
| S10 | 62 | ((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and loop\$   | US-PGPUB; USPAT | OR | ON | 2005/06/23 15:32 |
| S11 | 53 | ((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and loop\$) and (loop\$ same magnetic)   | US-PGPUB; USPAT | OR | ON | 2003/12/23 19:31 |
| S12 | 9  | ((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and loop\$) and (loop\$ same magnetic)) and (loop\$ same magnetic same clos\$)   | US-PGPUB; USPAT | OR | ON | 2003/12/23 19:35 |
| S13 | 3  | ((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and loop\$) and (loop\$ same magnetic)) and (loop\$ same magnetic same closed)   | US-PGPUB; USPAT | OR | ON | 2003/12/23 19:36 |
| S14 | 57 | ((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and loop\$) and ("soft magnetic" with (underlayer or perpendicular))   | US-PGPUB; USPAT | OR | ON | 2005/11/30 15:39 |
| S15 | 57 | ((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and loop\$) and ("soft magnetic" with (underlayer or perpendicular))) and ("soft magnetic" with (underlayer or perpendicular)) | US-PGPUB; USPAT | OR | ON | 2005/06/23 15:34 |

|     |      |   |   |    |     |                  |
|-----|------|---|---|----|-----|------------------|
| S16 | 5    | (((((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and loop\$) and ("soft magnetic" with (underlayer or perpendicular))) and ("soft magnetic" with (underlayer or perpendicular))) and ("soft magnetic" with nm with "NiFe")) | US-PGPUB;<br>USPAT                                      | OR | ON  | 2005/06/23 15:35 |
| S17 | 1    | "6641934"   | USPAT   | OR | OFF | 2004/06/28 17:08 |
| S18 | 198  | "closed magnetic loop"  | USPAT   | OR | OFF | 2004/06/28 17:21 |
| S19 | 23   | "closed magnetic loop" and "magnetic recording"   | USPAT   | OR | OFF | 2004/06/28 19:14 |
| S20 | 1072 | 428/694t or 428/694tm   | USPAT   | OR | OFF | 2004/06/28 19:18 |
| S21 | 0    | "perpendicular magnetic"/clm  | USPAT   | OR | OFF | 2004/06/28 19:19 |
| S22 | 0    | "perpendicular magnetic"/cm   | US-PGPUB;<br>USPAT                                      | OR | OFF | 2004/06/28 19:19 |
| S23 | 0    | "perpendicular magnetic"/cl   | US-PGPUB;<br>USPAT                                      | OR | OFF | 2004/06/28 19:19 |
| S24 | 4215 | "perpendicular magnetic"  | US-PGPUB;<br>USPAT                                      | OR | OFF | 2004/06/28 19:21 |
| S25 | 1227 | 428/694T or 428/694TM   | US-PGPUB;<br>USPAT                                      | OR | OFF | 2005/06/23 15:31 |
| S26 | 316  | (428/694T or 428/694TM) and "perpendicular magnetic"  | US-PGPUB;<br>USPAT                                      | OR | OFF | 2004/06/28 22:13 |
| S27 | 31   | "5616218" OR "4632883"  | US-PGPUB;<br>USPAT                                      | OR | OFF | 2004/06/28 22:14 |
| S28 | 0    | "0461834"   | EPO   | OR | OFF | 2004/06/28 22:14 |
| S29 | 0    | EPO0461834  | EPO   | OR | OFF | 2004/06/28 22:15 |
| S30 | 1    | "461834"  | EPO   | OR | OFF | 2004/06/28 22:15 |
| S31 | 232  | (perpendicular same magnetic same recording) and ((coercivity or "Hc" or "Ho") same maximum) and (thick or thickness)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 20:30 |
| S32 | 98   | S31 and (underlayer or "under layer") and (soft same magnetic)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 22:25 |
| S33 | 8    | S31 and "Kim"   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 20:38 |

|     |     |  |   |    |     |                  |
|-----|-----|--|---|----|-----|------------------|
| S34 | 72  | S32 and (reduc\$ same thickness\$)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 20:41 |
| S35 | 2   | S33 and S34  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 20:38 |
| S36 | 50  | S34 and (thickness same perpendicular)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 20:42 |
| S37 | 232 | (perpendicular same magnetic same recording) and ((coercivity or "Hc" or "Ho") same maximum) and (thick or thickness)                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/23 15:35 |
| S38 | 98  | S37 and (underlayer or "under layer") and (soft same magnetic)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 22:25 |
| S39 | 80  | S38 and ((coercivity or "Hc" or "Ho") same (thick or thickness))   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 22:26 |
| S40 | 34  | "349810" or "001218"   | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT                  | OR | OFF | 2005/06/22 14:51 |
| S41 | 8   | Hirota and Shinzo  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT                  | OR | OFF | 2005/06/22 14:51 |
| S42 | 985 | 428/694T or 428/694TM  | US-PGPUB;<br>USPAT                                      | OR | OFF | 2005/06/23 15:42 |
| S43 | 296 | (428/694\$ or 369/13.\$ or "360"/("131, 135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer"             | US-PGPUB;<br>USPAT                                      | OR | ON  | 2005/11/30 15:46 |
| S44 | 115 | ((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and loop\$ | US-PGPUB;<br>USPAT                                      | OR | ON  | 2005/06/23 15:32 |

|     |       |  |   |    |     |                  |
|-----|-------|--|---|----|-----|------------------|
| S45 | 169   | (((((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and loop\$) and ("soft magnetic" with (underlayer or perpendicular))) and ("soft magnetic" with (underlayer or perpendicular)))   | US-PGPUB;<br>USPAT                                      | OR | ON  | 2005/06/23 15:35 |
| S46 | 13    | (((((428/694\$ or 369/13.\$ or "360"/("131,135,136")) and ("perpendicular magnetic") and ("soft magnetic") and "underlayer") and loop\$) and ("soft magnetic" with (underlayer or perpendicular))) and ("soft magnetic" with (underlayer or perpendicular))) and ("soft magnetic" with nm with "NiFe") | US-PGPUB;<br>USPAT                                      | OR | ON  | 2005/06/23 15:35 |
| S47 | 232   | (perpendicular same magnetic same recording) and ((coercivity or "Hc" or "Ho") same maximum) and (thick or thickness)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/23 16:23 |
| S48 | 2094  | 427/131 or 427/313   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/23 15:41 |
| S49 | 278   | 360/327.\$   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/30 15:23 |
| S50 | 10200 | 428/64.\$ or 428/65.5 or 428/611 or 428/336 or 428/693   | US-PGPUB;<br>USPAT                                      | OR | OFF | 2005/11/30 15:22 |
| S51 | 0     | "20050142385"  | US-PGPUB;<br>USPAT                                      | OR | OFF | 2005/06/23 16:15 |
| S52 | 1     | "20050123805"  | US-PGPUB;<br>USPAT                                      | OR | OFF | 2005/06/23 16:23 |
| S53 | 1092  | 204/192.2  | US-PGPUB;<br>USPAT                                      | OR | OFF | 2005/06/23 16:23 |
| S54 | 80    | (S53 or S42 or S43 or S44 or S49) and (perpendicular same magnetic same recording) and ((coercivity or "Hc" or "Ho") same maximum) and (thick or thickness)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/23 16:36 |
| S55 | 1     | 11-023256  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/23 16:47 |

|     |   |               |   |    |     |                  |
|-----|---|---------------|---|----|-----|------------------|
| S56 | 1 | "20050136290" | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/23 16:50 |
| S57 | 1 | "20050118460" | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/23 16:53 |
| S58 | 0 | "0050123806"  | US-PGPUB  | OR | ON  | 2005/06/23 16:54 |
| S59 | 0 | "0050123806"  | US-PGPUB;<br>USPAT                                      | OR | ON  | 2005/06/23 16:54 |
| S60 | 1 | "20050129985" | US-PGPUB;<br>USPAT                                      | OR | ON  | 2005/06/23 16:54 |
| S61 | 1 | "20030157378" | US-PGPUB  | OR | OFF | 2005/06/23 21:08 |
| S62 | 1 | "20040121194" | US-PGPUB  | OR | OFF | 2005/06/23 21:10 |
| S63 | 1 | "20030190498" | US-PGPUB  | OR | OFF | 2005/06/23 21:12 |
| S64 | 1 | "20050118462" | US-PGPUB  | OR | OFF | 2005/06/23 21:13 |
| S65 | 1 | "20050084719" | US-PGPUB  | OR | OFF | 2005/06/23 21:13 |